



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,103	02/05/2004	Daniel G. Howard	ECD-0014CIP	3970
29344	7590	08/21/2007		
MILLS & ONELLO LLP ELEVEN BEACON STREET SUITE 605 BOSTON, MA 02108			EXAMINER DOAN, TRANG T	
			ART UNIT 2131	PAPER NUMBER
			MAIL DATE 08/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/773,103

Applicant(s)

HOWARD ET AL.

Examiner

Trang Doan

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

1. Claims 1-18 are pending for consideration.
2. The application is filed on 02/05/2004 but claims the benefit of Provisional Application has been made and acknowledged.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on 06/02/2004, 06/07/2004, 10/08/2004, 03/31/2006, 04/03/2006 and 02/05/2007 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statements.

Claim Objections

4. Regarding claims 5 and 14, the Applicant requires to spell out the abbreviated symbols, e.g., MD2, MD4, MD5, Snefru, SHA, NIST DSA, Haval, N-Hash, and RIPE-MD digital signatures.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson (US 6477124) (hereinafter Carson) in view of Gotoh et al. (US 6122373) (hereinafter Gotoh).

7. Regarding claim 1, Carson discloses a method for determining the presence of an anomaly region in a digital medium comprising: performing multiple read operations on a data segment of the medium to generate multiple corresponding read data results (Carson: see figure 3 and 9, column 5 lines 7-25, column 8 lines 7-32 and column 9 lines 14-50); calculating corresponding digital signatures for each of the multiple read data results (Carson: see figure 9, column 8 lines 7-32 and column 9 lines 14-20 and lines 40-50, i.e. data rate profile can be stored on the disc and used for disc authentication purposes); and determining whether an anomaly region is present in the data segment based on a comparison of the digital signatures (Carson: see figure 9, column 5 lines 27-67, column 7 lines 7-26, column 8 lines 7-32 and column 9 lines 30-50).

However, Carson does not explicitly disclose in detail using digital signature to authenticate the digital medium. Gotoh discloses using digital signature to authenticate the digital medium (Gotoh: see figure 18, column 16 lines 40-52, column 31 line 34 through column 32 line 7). It would have been obvious to one ordinary skill in the art at the time the invention was made to use the digital signature for authentication purposes, since Gotoh states that such a modification is to provide a greatly improved pirated-disk and other illegal duplication prevention capability (Gotoh: column 41 lines 32-34).

8. Regarding claim 2, Carson in view of Gotoh further discloses wherein the data comprises data selected from the group consisting of: user data, error data, sync data, parity data, header data, and sub-channel data (Carson: see figure 1, ref. 108).
9. Regarding claim 3, Carson in view of Gotoh further discloses monitoring a transfer rate of the read data during at least one of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored transfer rate (Carson: see figure 2, figure 4, column 2 lines 40-67, column 5 lines 27-67 and column 7 lines 7-26).
10. Regarding claim 4, Carson in view of Gotoh further discloses first monitoring a first transfer rate of first read data during one of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored first transfer rate; and in the event that the presence of an anomaly is not determined as a result of the first monitoring, second monitoring a second transfer rate of second read data during another of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored second transfer rate (Carson: see figure 3, column 6 lines 45-55 and column 8 lines 15-32).
11. Regarding claim 5, Carson does not disclose in detail wherein calculating corresponding digital signatures for each of the multiple read data results comprises calculating a digital signature selected from the group consisting of MD2, MD4, MD5, Snefru, SHA, NIST DSA, Haval, N-Hash, and RIPE-MD digital signatures. Gotoh discloses using digital signature to authenticate the digital medium (Gotoh: see figure

18, column 16 lines 40-52, column 31 line 34 through column 32 line 7). It would have been obvious to one ordinary skill in the art at the time the invention was made to use the digital signature for authentication purposes, since Gotoh states that such a modification is to provide a greatly improved pirated-disk and other illegal duplication prevention capability (Gotoh: column 41 lines 32-34).

12. Regarding claims 6, 7 and 8, these claims have limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

13. Regarding claim 9, Carson in view of Gotoh further discloses authenticating the medium in response to the determination of the presence of the anomaly region (Carson: see figure 9 and column 8 lines 15-32).

14. Regarding claim 10, this claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

15. Regarding claim 11, this claim has limitations that is similar to those of claim 2, thus it is rejected with the same rationale applied against claim 2 above.

16. Regarding claim 12, this claim has limitations that is similar to those of claim 3, thus it is rejected with the same rationale applied against claim 3 above.

17. Regarding claim 13, this claim has limitations that is similar to those of claim 4, thus it is rejected with the same rationale applied against claim 4 above.

18. Regarding claim 14, this claim has limitations that is similar to those of claim 5, thus it is rejected with the same rationale applied against claim 5 above.

19. Regarding claim 15, this claim has limitations that is similar to those of claim 6, thus it is rejected with the same rationale applied against claim 6 above.

Art Unit: 2131

20. Regarding claim 16, this claim has limitations that is similar to those of claim 7, thus it is rejected with the same rationale applied against claim 7 above.

21. Regarding claim 17, this claim has limitations that is similar to those of claim 8, thus it is rejected with the same rationale applied against claim 8 above.

22. Regarding claim 18, this claim has limitations that is similar to those of claim 9, thus it is rejected with the same rationale applied against claim 9 above.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kelley et al discloses "CDROM Copy Protection" (US 6767695).
- Bates, Terence James discloses "integrity verification and authentication of copies of computer data" (EP 0893763).
- Sollish et al. discloses "copy protected DVD and method for producing and validating same" (US 2002/0069389).
- Bell et al. discloses "system and method for authorized compression of digitized music" (US 7082413).

Art Unit: 2131

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang Doan whose telephone number is (571) 272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Trang Doan
Examiner
Art Unit 2131

T.D.


SYED A. ZIA
PRIMARY EXAMINER